



# COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.: VA0086304  
Effective Date: July 12, 2011  
Expiration Date: July 11, 2016

**AUTHORIZATION TO DISCHARGE UNDER THE  
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM**

**AND**

**THE VIRGINIA STATE WATER CONTROL LAW**

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II of this permit, as set forth therein.

Owner: Town of Marion  
Facility Name: Town of Marion Wastewater Treatment Plant  
County: Smyth  
Facility Location: 1510 Daisy Lane

The owner is authorized to discharge to the following receiving stream:

Stream: Middle Fork Holston River  
River Basin: Tennessee-Big Sandy River  
River Subbasin: Holston  
Section: 5  
Class: IV  
Special Standards: None

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Regional Director  
Department of Environmental Quality

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Date

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall Number 001. This discharge shall be limited and monitored by the permittee as specified below.

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATION		MONITORING REQUIREMENTS		
	Monthly Average	Weekly Average	Minimum	Maximum	Frequency Sample Type
Flow (MGD) <sup>a</sup>	NL	NA	NA	NL	Continuous Totalizing & Recording
pH (standard units)	NA	NA	6.0	9.0	1/Day Grab
CBOD <sub>5</sub> <sup>b,e</sup>	25 mg/l	38 mg/l	NA	NA	1 Day/Week 24 Hour Composite
Suspended Solids <sup>b,e</sup>	30 mg/l	45 mg/l	NA	NA	1 Day/Week 24 Hour Composite
E.coli	126 n/100 ml*	NA	NA	NA	3/Week @ 48 Hr. Intervals** Grab
Ammonia Nitrogen NH <sub>3</sub> -N <sup>b</sup>	3.6 mg/l	4.4 mg/l	NA	NA	1/Week 24 Hour Composite
Dissolved Oxygen	NA	NA	6.0 mg/l	NA	1/Day Grab
Chronic Toxicity Units <sup>d</sup>	NA	NA	NA	NL Tu <sub>C</sub>	1/Year 24 Hour Composite

a. The design flow of this treatment facility is 3.4 MGD.

b. See PART I B. Special Condition - Compliance Reporting Under PART I A.

c. There shall be no discharge of floating solids or visible foam in other than trace amounts.

d. The tests must use two (2) species, *Ceriodaphnia dubia* and *Pimephales promelas*. Express the results as Tu<sub>C</sub> (Chronic Toxicity Units) by dividing 100/NOEC for DMR reporting.

e. At least 85% removal for CBOD and total suspended solids must be attained for this effluent.

\*Geometric Mean

\*\*Between 10 a.m. and 4 p.m.

NL = No limitation, monitoring required.

NA = Not applicable

PART I

A. SEWAGE SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to manage sewage sludge in accordance with 9VAC25-31-10 et seq and 9VAC25-32-10 et seq and as detailed in the approved Sludge Management Plan which consists of the Sewage Sludge Application and Attachments. The pollutants in sewage sludge shall be limited and monitored by the permittee as specified below:

Chemical Pollutant Limitations And Monitoring Requirements for Land Applied Sludge

SLUDGE CHARACTERISTICS	LIMITATIONS		MONITORING REQUIREMENTS	
	Ceiling Concentration Maximum (mg/kg) a,b,c	Monthly Average (mg/kg) a,b	Frequency <sup>d</sup>	Sample Type
Total Arsenic*	75	41	1/Year	Composite
Total Cadmium*	85	39	1/Year	Composite
Total Copper*	4,300	1,500	1/Year	Composite
Total Lead*	840	300	1/Year	Composite
Total Mercury*	57	17	1/Year	Composite
Total Molybdenum*	75	NA	1/Year	Composite
Total Nickel*	420	420	1/Year	Composite
Total Selenium*	100	100	1/Year	Composite
Total Zinc*	7,500	2,800	1/Year	Composite

PART I

A. SEWAGE SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS (cont.)

SLUDGE CHARACTERISTICS	LIMITATIONS (mg/kg) <sup>a,b</sup>	MONITORING REQUIREMENTS	
		Frequency <sup>d</sup>	Sample Type
TKN	NL	1/Year	Composite
Percent Solids	NL	1/Year	Composite
Ammonium Nitrogen	NL	1/Year	Composite
Nitrate Nitrogen	NL	1/Year	Composite
Total P	NL	1/Year	Composite
Total K	NL	1/Year	Composite
pH (Std. Units at 25°C)	NL	1/Year	Composite
Alkalinity** as CaCO <sub>3</sub> (%)**	NL	1/Year	Composite

NL = No limitation, monitoring required. NA = Not Applicable

\* Metals are subject to cumulative pollutant loading rates (CPLRs). See Footnote C below.

\*\* Lime treated sludge (10% or more CaCO<sub>3</sub> by dry weight) should be analyzed for percent Calcium Carbonate Equivalence (CCE).

- Dry weight basis, unless otherwise stated.
- All samples shall be collected and analyzed in accordance with Title 40 Code of Federal Regulations Parts 503 and 136. The results of the biosolids monitoring specified above shall be submitted in accordance with the Biosolids Reporting Requirements, Part I F.1.
- The maximum concentration shall be reported as the highest single result from sampling during a monitoring period. If the concentration of any single sample of biosolids exceeds the ceiling concentration for any metal listed above, the biosolids shall not be land applied. If the concentration of any metal above exceeds the monthly average concentration but is less than the ceiling concentration, the cumulative loading of the metals must be tracked. See Part I A.3.
- The frequency of analysis for biosolids is 1/Year. If the total amount of biosolids produced is greater than 290 dry metric tons per year the frequency of analysis shall be increased to 1/Quarter.
- Annual Sludge Production Data: (SP1) - In accordance with Part I F.4. the permittee shall report the annual total amount of sludge produced, in dry metric tons, by the facility and annual amount of sludge, in dry metric tons, used or disposed in various methods. The report is due by February 19 of each year.
- Pathogen Reduction Limitations: Biosolids land applied in Virginia shall comply with one of the applicable Class B pathogen reduction alternatives specified in 9VAC25-31-710.A or B. The permittee shall identify the alternative used in the annual report and perform adequate monitoring and maintain adequate bench sheets to insure that sufficient pathogen reduction is achieved.
- Vector Attraction Reduction Limitations: Biosolids land applied in Virginia shall comply with one of the applicable vector attraction reduction alternatives specified in 9VAC25-31-720.B1 - B10. The permittee shall identify the alternative used in the annual report and maintain adequate bench sheets to insure that sufficient vector attraction reduction is achieved.

PART I

A. SEWAGE SLUDGE LIMITATIONS AND MONITORING REQUIREMENTS (cont.)

3. Biosolids - If the concentration of any of these constituents in biosolids from any source exceeds the monthly average pollutant concentration in Part I.A.2., then the biosolids from the source are subject to CPLR rules and tracking (Part I.E.23 - 28) and the cumulative pollutant loading at each site shall be limited by the permittee as specified below:

<u>BIOSOLIDS CHARACTERISTICS</u> <sup>a</sup>		<u>LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
<u>Metal</u>	<u>Maximum Cumulative Pollutant Loading Rate<sup>b</sup></u>	<u>(kg/ha)</u>	<u>(lb/Ac)</u>	<u>Frequency</u>	<u>Sample Type</u>
Total Arsenic		41	36	Each application	Calculated
Total Cadmium		39	35	Each application	Calculated
Total Copper		1,500	1,340	Each application	Calculated
Total Lead		300	270	Each application	Calculated
Total Mercury		17	16	Each application	Calculated
Total Molybdenum		NA	NA	Each application	Calculated
Total Nickel		420	375	Each application	Calculated
Total Selenium		100	89	Each application	Calculated
Total Zinc		2,800	2,500	Each application	Calculated

NA = Not applicable

a. Constituents subject to CPLRs, PCs, and ceiling limits.

b. No person shall apply bulk biosolids subject to the CPLRs identified above to agricultural land, forest, a public contact site, or a reclamation site if any of the cumulative pollutant loading rates identified above has been reached. The CPLR is the maximum cumulative application of trace elements that can be applied to soils used for crop production. The maximum cumulative application rate is limited for all ranges of cation exchange capacity due to soil background pH in Virginia of less than 6.5 SU and lack of regulatory controls of soil pH adjustment after biosolids application ceases.

PART I

A. SOIL MONITORING REQUIREMENTS

4. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to manage sewage sludge according to the approved Sludge Management Plan.

The pollutants in soil shall be monitored by the permittee as specified below:

<u>PARAMETERS</u>	<u>LIMITATIONS</u>	<u>MONITORING FREQUENCY</u>	<u>SAMPLE TYPE</u>
Soil pH (Std. Units)	NL	1/Application	Composite
Cation Exchange Capacity (meq/100 g)	NL	1/Application	Composite
Available Phosphorous (mg/kg)	NL	1/Application	Composite
Exchangeable Potassium (mg/kg)	NL	1/Application	Composite
Exchangeable Magnesium (mg/kg)	NL	1/Application	Composite

NL = No Limitation, Monitoring required.

- Results of the soil monitoring specified above shall be used to develop the Nutrient Management Plan ( NMP) in accordance with Part I.E.3. Submission of a separate monitoring report is not required.
- Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: All land application sites before sludge is reapplied.
- Soil composite samples shall be representative of the soil types delineated by the SCS Soil Survey (or the equivalent). Samples shall be taken at 0 -6 inches soil depth for each land application sites. Soil testing used to develop a NMP must be conducted by a DCR approved laboratory in accordance with the Virginia Nutrient Management Standards and Criteria.
- Unless otherwise stated, all parameters are reported on a dry weight basis.
- Several partial applications may be utilized until the site is completely covered, with no additional monitoring being required.

## PART I

B. Compliance Reporting

1. The quantification levels (QL) shall be less than or equal to the following concentrations:

<u>Effluent Characteristic</u>	<u>Quantification Level</u>
CBOD <sub>5</sub>	5.0 mg/l
Total Suspended Solids	1.0 mg/l
Ammonia Nitrogen	0.10 mg/l

The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. It is the responsibility of the permittee to ensure that proper quality assurance/quality control (QA/QC) protocols are followed during the sampling and analytical procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs have been attained. The permittee shall use any method in accordance with Part II A of this permit.

2. **Monthly Average** -- Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in subsection 1. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in 1. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in 1. above) shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in 1. above), then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then "<QL" shall be reported for the quantity. Otherwise the reported concentration data (including the defined zeros) and flow data for each sample day shall be used to determine the daily quantity and the monthly average of the calculated daily quantities shall be reported.

**Weekly Average** -- Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in subsection 1. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in 1. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in 1. above) shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week and entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in 1. above), then the weekly average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported weekly average concentration is <QL, then "<QL" shall be

PART I

B. Compliance Reporting  
(continued)

reported for the quantity. Otherwise the reported concentration data (including the defined zeros) and flow data for each sample day shall be used to determine the daily quantity and the maximum weekly average of the calculated daily quantities shall be reported.

**Daily Maximum** -- Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in subsection 1. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in 1. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in 1. above) shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages thus determined shall be reported on the DMR as the Daily Maximum. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in 1. above), then the maximum value of the daily averages shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported daily maximum concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported daily average concentrations (including the defined zeros) and corresponding daily flows to determine daily average quantities and report the maximum of the daily average quantities during the reporting month.

**Single Datum** - Any single datum required shall be reported as "<QL" if it is less than the QL used for the analysis (QL must be less than or equal to the QL listed in a. above). Otherwise the numerical value shall be reported.

3. **Significant Digits** -- The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used by the permittee (i.e., 5 always rounding up or to the nearest even number), the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

C. Special Condition - Pretreatment Program Implementation

1. The permittee's pretreatment program has been approved. The program is an enforceable part of this permit. The permittee shall:
  - a. Implement a pretreatment program that complies with the Clean Water Act, Water Control Law, State regulations and the approved program.
  - b. Submit to the DEQ Regional Office an annual report that describes the permittee's program activities over the previous year. The annual report shall be submitted no later than January 31 of each year and shall include:

## PART I

C. Special Condition - Pretreatment Program Implementation  
(continued)

- (1) An updated list of the Significant Industrial Users\* noting all of the following:
  1. Facility address, phone and contact name;
  2. Explanation of SIUs deleted from the previous years list;
  3. Identification of IUs which are subject to Categorical Standards and which Standard (ie. metal finishing) applies;
  4. Specification of which 40 CFR part(s) is/are applicable;
  5. Indication of which IUs are subject to local standards that are more stringent than Categorical Pretreatment Standards;
  6. Indication of which IUs are subject only to local requirements;
  7. Identification of which IUs are subject to Categorical Pretreatment Standards that are subject to reduced reporting requirements under 9 VAC 25-31-840 E.3.;
  8. Identification of which IUs are non-significant Categorical Industrial Users;
- (2) A summary of the compliance status of each Significant Industrial User with pretreatment standards and permit requirements.
- (3) A summary of the number and types of Significant Industrial User sampling and inspections performed by the POTW.
- (4) All information concerning any interference, upset, VPDES permit or Water Quality Standards violations directly attributable to Significant Industrial Users and enforcement actions taken to alleviate said events.
- (5) A description of all enforcement actions taken against Significant Industrial Users over the previous 12 months.
- (6) A summary of any changes to the submitted pretreatment program that has not been previously reported to the DEQ Regional Office.
- (7) A summary of the permits issued to Significant Industrial Users since the last annual report.
- (8) POTW and self-monitoring results for Significant Industrial Users determined to be in significant non-compliance during the reporting period.
- (9) Results of the POTW's influent/effluent/sludge sampling, not previously submitted to DEQ.
- (10) Copies of newspaper publications of all Significant Industrial Users in significant non-compliance during the reporting period. This is due no later than March 31 of each year.
- (11) Signature of an authorized representative.

PART I

C. Special Condition - Pretreatment Program Implementation  
(continued)

- c. Within 180 days of the effective date of this permit, submit to the DEQ Regional Office a survey of all Industrial Users discharging to the POTW. The information shall be submitted to the POTW on the DEQ's Discharger Survey Form or an equivalent form that includes the quantity and quality of the wastewater. Survey results shall include the identification of significant industrial users of the POTW.
- d. Submit any changes to the approved pretreatment program to the DEQ Regional Office and obtain approval before implementation of the changes.
- e. Ensure all Significant Industrial Users' permits are issued and reissued in a timely manner and that the Significant Industrial User permits issued by the POTW are effective and enforceable.
- f. Inspect and sample all Significant Industrial Users at a minimum of once a year.
  - (1) Sampling shall include all regulated parameters, and shall be representative of the wastewater discharged.
  - (2) Inspection of the Significant Industrial Users shall cover all areas which could result in wastewater discharge to the treatment works including manufacturing, chemical storage, pretreatment facilities, spill prevention and control procedures, hazardous waste generation and Significant Industrial User's self-monitoring and records.
- g. Implement the reporting requirements of Part VII of the VPDES Permit Regulation.
- h. Review the Enforcement Response Plan (ERP) and ensure it meets state and federal regulatory requirements. The approved ERP is an enforceable part of this permit and shall be implemented.
- i. Develop local limits or reevaluate local limits using current influent, effluent and sludge monitoring data and submit the data and results of the evaluation to the DEQ Regional Office within one year of the effective or modification date. All Significant Industrial Users shall be sampled at the end of any categorical process and at the entrance to the treatment works.
- j. Ensure that adequate resources are available to implement the approved program.
- k. Meet all public participation requirements and annually public notice Significant Industrial Users in significant non-compliance with pretreatment standards and requirements for the previous 12 months.

PART I

C. Special Condition - Pretreatment Program Implementation  
(continued)

1. In lieu of the survey, the permittee may elect to develop, submit for approval and implement a plan to continuously survey the industrial community in their jurisdiction.
2. The DEQ may require the POTW to institute changes to its pretreatment program:
  - a. If the approved program is not implemented in a way satisfying the requirements of the Clean Water Act, Water Control Law or State regulations;
  - b. If problems such as pass-through, interference, water quality standards violations or sludge contamination develop or continue; and
  - c. If federal, state or local requirements change.

\*A significant industrial user is one that:

- a. Has an average flow of 25,000 gallons or more per average day of process\*\* wastewater;
- b. Contributes a process wastestream which makes up 5-percent or more of the average dry weather hydraulic or organic capacity of the POTW;
- c. Is subject to the categorical pretreatment standards; or
- d. Has significant impact, either singularly or in combination with other Significant Dischargers, on the treatment works or the quality of its effluent.

\*\*Excludes sanitary, non-contact cooling water and boiler blowdown.

D. Special Condition - Whole Effluent Toxicity Testing

1. Biological Monitoring

- a. In accordance with the schedule in 2. below, the permittee shall conduct annual chronic toxicity tests for the term of the permit using 24-hour flow-proportioned composite samples of final effluent from outfall 001.

The chronic tests to use are:

Chronic 3-Brood Static Renewal Survival and Reproduction Test using *Ceriodaphnia dubia*;

Chronic 7-Day Static Renewal Survival and Growth Test using *Pimephales promelas*;

These chronic tests shall be conducted in such a manner and at

PART I

D. Special Condition - Whole Effluent Toxicity Testing  
(continued)

sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results which cannot be determined (i.e., a "less than" NOEC value) are not acceptable, and a retest will have to be performed. The test NOEC must be expressed as  $TU_c$  (Chronic Toxic Units), by dividing  $100/NOEC$  for DMR reporting. The test report must include the  $LC_{50}$  at 48 hours, the  $IC_{25}$ , and the NOEC's.

The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

- b. The test dilutions should be able to determine compliance with the following endpoints:

(1) Chronic NOEC<sup>1</sup> of 16% equivalent to a  $TU_c$  of 6.25

- c. The test data will be evaluated by WLA.EXE for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of 1.a. may be discontinued.

2. Reporting Schedule

The permittee shall report the results on the DMR and supply copies of the toxicity test reports specified in this Toxics Management Program in accordance with the following schedule:

<u>Period</u>	<u>Compliance Periods</u>	<u>DMR/Report/Submission Dates</u>
Annual 1	By 08/31/2011	10/10/2011
Annual 2	By 08/31/2012	10/10/2012
Annual 3	By 08/31/2013	10/10/2013
Annual 4	By 08/31/2014	10/10/2014
Annual 5	By 08/31/2015	10/10/2015

<sup>1</sup> NOEC = the highest percent concentration where there was no significant difference when compared to the controls. (Note: This is interpreted as the highest percent concentration where there is no significant difference when compared to the controls, and below which there is no statistically significant adverse effect.)

PART I

E. Special Condition - Biosolids Land Application Special Conditions:

1. *Sludge Use and Disposal* - The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the issuance of this permit. Any proposed changes in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ approval 90 days prior to the effective date of the changes. Upon approval, the revised SMP becomes an enforceable part of the permit. The permit may be modified or alternatively revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in sewage sludge use or disposal practices.

The Sludge Management Plan, which consists of the VPDES Sewage Sludge Application Form and attachments. Biosolids shall be applied only at the sites identified below:

<u>Site</u>	<u>Owner</u>	<u>Description</u>	<u>Acreage</u> (acres)	<u>County</u>
S01	William S. Meek	Field # 13	11	Smyth
S03	William S. Meek	Field # 18	19	Smyth
S04	William S. Meek	Field # 19	21	Smyth
S05	Scott Waddle	Area A	27.4	Smyth
S06	Scott Waddle	Area B	39.4	Smyth
S07	Scott Waddle	Area C	41.1	Smyth

2. *Sludge Reopener* - The Board may promptly modify or revoke and reissue this permit if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.
3. *Nutrient Management Plan Requirement (NMP)* - A NMP shall be developed for each land application site prior to biosolids application. A copy of the NMP shall be present at the land application site during land application operations and available for review by DEQ staff. A copy of the NMP shall be submitted to the DEQ Southwest Regional Office for review at least 30 days prior to land application on the site. Copies of the NMP shall also be provided to the farmer/operator of the site, the Department of Conservation and Recreation (DCR) regional office and the chief executive officer or designee for the local government, unless they request in writing not to receive the NMP. The NMP shall be enforceable through this permit.

The NMP shall be prepared and revised by a certified nutrient management planner as stipulated in regulations promulgated pursuant to §10.1-104.2 of the Code of Virginia. The NMP shall be written in accordance with the criteria stipulated in regulations promulgated pursuant to §10.1-104.2 of the Code of Virginia.

All NMPs shall account for all sources of nutrients to be applied to the site.

PART I

E. Biosolids Land Application Special Conditions:  
(continued)

Where land application of biosolids is to be performed more frequently than once every three years at greater than 50% of the annual agronomic rate; or where the owner or lessee of the land application site is the operator of a confined animal feeding operation in accordance with §62.1-44.17:1 of the Code of Virginia; or where site-specific conditions demonstrate an increased risk to state waters as determined by DEQ, the permittee shall submit an NMP that has been approved by the DCR with a copy of the approval letter at the time of any permit modification requests to DEQ.

4. *Loading Rates* - Application rates shall be based on the annual average sludge quality. The average sludge quality shall be established from the results of approved analytical testing of composite samples obtained during the most recent 12 months of monitoring.

The permittee shall calculate biosolids loading rates based on the most rate limiting factor, specifically plant available nitrogen (PAN), phosphorus (as  $P_2O_5$ ) or calcium carbonate equivalency (CCE); within the recommendations of the nutrient management plan for the application site and other limiting factors specified in Part I.E.10., Part I.E.11. and Part I.E.12.

However, for biosolids subject to the cumulative pollutant loading rate, the biosolids application shall be restricted by the metals content of the biosolids if the cumulative pollutant loading rate at the site is approached or if the ceiling limit of the biosolids is reached, unless the NMP specifies more restrictive biosolids application rates based on the nutrient content or CCE of the biosolids.

5. *14 Day Notification* - The permittee shall provide written notification to the DEQ-Southwest Regional Office at least 14 days prior to commencing land application of biosolids at each permitted site. The notice shall contain the following information:
  - a. Permitted site identification;
  - b. Permitted site location, to include:
    - (1) County;
    - (2) Route number/road name; and
    - (3) Latitude/longitude coordinates in decimal degrees that represent a location within the boundaries of the site;
  - c. Approximate dates of application; and
  - d. Expected sources of biosolids.
6. *Signage Requirements* - At least 48 hours prior to the delivery of biosolids to each land application site, the permittee shall post a sign at the site notifying the public that biosolids will be applied. The sign shall be maintained at the site during the application and for at least 48 hours after the biosolids application has been completed.
  - a. The sign shall be visible and legible from the public road adjacent to the field, or the intersection of the public road and the main access road or driveway to the site. Upon the request of the permittee, the department may grant a waiver to

PART I

E. Biosolids Land Application Special Conditions:  
(continued)

this or any other signage requirement, or require alternative posting options due to extenuating circumstances.

- b. The sign shall be weather-resistant and sturdy enough to remain in place and legible throughout the period that the sign is required at the site. The sign shall be at least four square feet in area and shall only contain the following information:
  - (1) A statement that biosolids are being land-applied at the site;
  - (2) The name and telephone number of the permit holder; The name or title, and telephone number of an individual designated by the permit holder to respond to complaints and inquiries; and
  - (3) Contact information for the DEQ-Southwest Regional Office, including a telephone number for complaints and inquiries.
7. *100 Day Notification to the Locality* - At least 100 days prior to the first land application of biosolids at a site permitted under the VPDES Permit regulation, the permit holder shall provide written notification to the local government where the site is located. The notice shall identify the location of the permitted site and the expected sources of the biosolids to be applied to the site. This requirement may be satisfied by providing a list of all available permitted sites in the locality at least 100 days prior to commencing the application at any site on the list. If the site is located in more than one county or city, the notice shall be provided to all jurisdictions where the site is located.
8. *Certified Land Applicator Requirement* - The permittee shall ensure that no land application activities occur unless a certified land applicator (as specified in Article 5 of the VPA Permit Regulation 9VAC25-32 (Sections 690 through 760)) is onsite at all times during such land application. Certified land applicators may be considered to be onsite if they are at the site permitted for land application and, if it is necessary to leave the site, they are available within 30 minutes to return to the site to verify and ensure that land application of biosolids is in compliance with the permit.
9. *Threatened or Endangered Species* - Biosolids shall not be applied to the land if it is likely to adversely affect a threatened or endangered species listed under Virginia Water Quality Standards Regulation (9VAC25-260-00 et seq.) or Section 4 of the Endangered Species Act or if the land application is likely to adversely affect its designated critical habitat.
10. *Infrequent Application* - Land application sites receiving "infrequent" biosolids applications shall be managed in accordance with the following requirements:
  - a. Biosolids shall be applied on a once per three-year basis. None of the sites listed in Item 1. above that previously received a complete application of biosolids shall be used again until at least three years after the date of the last application. For the purposes of this special condition, a complete biosolids

## PART I

E. Biosolids Land Application Special Conditions:  
(continued)

- b. application shall be defined as the sum of all biosolids applications made within a 12 month period, regardless of whether or not the target level of nutrient addition was achieved. The soil sampling test results, in accordance with Part I.A.4., that are most recent, but not more than 3 years old, shall be included in the NMP before biosolids is reapplied to any field.
  - b. The rate of biosolids application shall never exceed 15 dry tons per acre per three years.
11. *Frequent Application Below Agronomic Rate* - Land application sites receiving "frequent, below agronomic rate" biosolids applications shall be managed in accordance with the following requirements:
- a. The application of biosolids together with any other source of PAN shall not exceed 70% of the agronomic loading rate for the crops grown on each site. Records of the actual biosolids application rates should be retained on site for inspection during land application operations.
  - b. A maximum of 70% of the nitrogen requirement of the permanent pasture or hay crop can be applied on an annual basis. The 70% application rate shall be calculated after accounting for the previous two years' applied biosolids nitrogen mineralization rates.
  - c. A maximum of 50% of the nitrogen requirement of the permanent pasture or hay crop can be applied on an annual basis. It is not necessary to account for the previous two years' applied biosolids nitrogen mineralization rates under this option.
  - d. The rate of biosolids application shall never exceed 15 dry tons per acre per year.
12. *Liquid Application Rate Limitation* - At no time shall liquid biosolids (< 15% total solids) be surface applied at a hydraulic loading rate greater than 14,000 gal/ac (0.5 inches depth) in a single application procedure. Sufficient drying time shall be allowed between subsequent applications.
13. *Operational Limitations During Periods of Inclement Weather* -
- a. Biosolids shall not be applied during times when the ground is saturated.
  - b. Surface application of biosolids shall not be made to cultivated or bare ground covered with ice; however, biosolids may be applied to snow covered ground if snow cover does not exceed an average depth of one inch and the snow and biosolids are immediately incorporated within 24 hours of application.
  - c. Biosolids may be applied to frozen ground only under the following conditions:
    - (1) Solids content of the biosolids is greater than 15%;
    - (2) Slopes are not greater than 5%;
    - (3) A minimum of a 200 foot vegetative (or at least 60% uniformly covered by stalks or other vegetation) buffer is maintained from all surface water courses;
    - (4) Only those soils characterized by the USDA as "well drained" are utilized; and
    - (5) Stalks, vines, stubble or other vegetation or crop residue provides uniform soil coverage of at least 60% and is

PART I

E. Biolosids Land Application Special Conditions:  
(continued)

sufficient to prevent surface runoff.

14. *Injection or Incorporation Requirement* - Biosolids shall be direct injected or incorporated (mixed within the normal plow layer) within 48 hours if applied on sites with less than 60% uniform soil coverage by crop residue, stalks, vines, stubble, or other vegetation within any portion of the permitted site or if applied to areas subject to frequent flooding as defined by soil survey information.
15. *Slope Restrictions* - Biosolids shall not be applied to site slopes that exceed 15%. During the period of November 16 to March 15 of the following year, when biosolids are applied to site slopes between 7% and 15%, one of the following best management practices (BMPs) shall be used to prevent runoff and soil loss:
  - a. Biosolids shall be surface applied or subsurface injected beneath an established living crop such as hay, pasture, or timely planted small grain or cover crop;
  - b. Biosolids shall be surface applied or subsurface injected so that immediately after application the crop residue still provides at least 60% soil surface coverage; or
  - c. The site is operated in compliance with an existing soil conservation plan approved by the USDA Natural Resource Conservation Service and will remain in compliance after any subsequent tillage operation to incorporate the biosolids.

During the period of November 16 to March 15 of the following year, on site slopes between 5% and 7%, biosolids can be land applied using one of the following BMPs:

- a. Biosolids shall be surface applied or subsurface injected beneath an established living crop such as hay, pasture, or timely planted small grain or cover crop;
  - b. Biosolids can be land applied by surface application or subsurface injection followed by incorporation within 48 hours of application if crop residue still provides at least 30% soil surface coverage immediately following incorporation; or
  - c. Biosolids can be land applied by surface application or subsurface injection followed by ridge tilling or chisel plowing within 48 hours of application.
16. *Buffer Zones* - Land application of biosolids shall not occur within the following minimum buffer zones:

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E. Biosolids Land Application Special Conditions:  
(continued)

<u>Adjacent Features</u>	<u>Minimum Distance(ft.) to Application Area</u>		
	<u>Surface Application<sup>a</sup></u>	<u>Incorporation</u>	<u>Winter<sup>b</sup></u>
Occupied dwellings <sup>c</sup>	200	200	200
Water supply wells and springs	100	100	100
Property lines <sup>c</sup>	100	50	100
Perennial streams and other surface waters except intermittent streams	50	35	100
Intermittent streams/drainage ditches	25	25	50
All improved roadways	10	5	10
Rock outcrops and Sinkholes	25	25	25
Agricultural drainage ditches with slopes equal to or less than 2.0%	10	5	10

- a. Not plowed or disked to incorporate within 48 hours.
- b. If surface application occurs on average site slopes between 7% and 15% during the time between November 16 of one year and March 15 of the following year.
- c. Buffers may be reduced with the written consent of affected landowners and residents.

17. *Transport Vehicles* - All vehicles that transport biosolids shall be sufficiently sealed to prevent leaking and spillage of biosolids. Totally closed, water tight transport vehicles with rigid tops shall be provided for liquid biosolids to prevent spillage.
18. *Soil pH and Cadmium* - If the cadmium concentration of the biosolids is greater than 21 mg/kg, post application soil pH shall be 6.0 or greater. If the pre-application soil pH is below 6.0, pH adjustment may be required. The pre-application soil pH result at the time of application shall not be over 1 year old. Lime application shall be calculated taking into account the CCE of the biosolids at the proposed biosolids application site.
19. *Landowner Consent and Notice* - Valid landowner consent forms shall be maintained for all sites specified in Part I E.1. of this permit. The permittee shall immediately notify the DEQ-Southwest Regional Office of any change in landowner agreement. The permittee shall provide the owner or leaseholder of the land on which the biosolids is applied notice and necessary information to comply with the requirements in this permit. Forms that may be used for providing this notice are included in the instructions for the sludge use and disposal application filed by the permittee.

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E. Biosolids Land Application Special Conditions:  
(continued)

20. *Site Restrictions for Land Application of Class B Biosolids -*
- a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids;
  - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remains on the land surface for four months or longer prior to incorporation into the soil;
  - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remains on the land surface for less than four months prior to incorporation into the soil;
  - d. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids;
  - e. Animals shall not be allowed to graze on the land for 30 days after application of biosolids;
  - f. Lactating dairy livestock shall not be allowed on sites within 60 days following biosolids application and green chopped forage from the site shall not be fed to milk cows if forage is removed within 60 days following biosolids application;
  - g. Turf grown on land where biosolids is applied shall not be harvested for one year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;
  - h. Public access to land with a high potential for public exposure shall be restricted for one year after application of biosolids; and
  - i. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.
21. *Depth to Water Table -* Biosolids shall not be land applied to soils where the water table is less than 18 inches. For all soils with a seasonal high water table of less than 18 inches, site specific soil borings shall be required prior to any land application during
22. the months in which the water table is commonly high as defined by the NRCS (SCS) Soil Survey.
- The soil borings shall be performed no more than 7 days prior to land application site activities and shall be conducted over the entire land application site area(s) restricted by the seasonal high water table. If, based on the soil borings in those areas, the water table is less than 18 inches, no biosolids shall be applied; if 18 inches or greater, application may occur at the permitted application rates. The signed soil boring logs shall be submitted with the monthly activity reports.
23. *Depth to Bedrock -* Biosolids shall not be land applied to soils where the depth to bedrock is less than 18 inches. For all soils where the NRCS (SCS) Soil Survey predicts a depth to bedrock of less than 18 inches, site specific soil borings shall be required prior to any land application of biosolids. The soil borings shall be conducted over the entire land application site area(s) restricted by the shallow bedrock. If based on the soil borings in those areas, the soil depth is less than

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E. Biosolids Land Application Special Conditions:  
(continued)

- 18 inches, no biosolids shall be applied; if 18 inches or greater, biosolids may occur at the permitted application rates. The signed soil boring logs shall be submitted with the monthly activity reports.
24. *Restrictions for CPLR Biosolids Application* - Biosolids subject to the cumulative pollutant loading rates CPLRs listed in Part I.A.3. shall not be applied to agricultural land, forest, a public contact site, or a reclamation site if any of the cumulative pollutant loading rates has been reached.
25. *Restrictions for CPLR Biosolids Application to Sites Previously Used* - Before biosolids subject to the CPLRs listed in Part I.A.3. are applied to the land, the permittee shall contact the DEQ-Southwest Regional Office to determine whether biosolids subject to the cumulative pollutant loading rates have been applied since July 20, 1993.
- If biosolids subject to the cumulative amount for each pollutant listed in Part I.A.3. have not been applied since July 20, 1993, the cumulative amount for each pollutant may be applied to the site in accordance with the cumulative loading limits listed in Part I.A.3.
  - If biosolids subject to the cumulative loading limits in Part I.A.3. have been applied since July 20, 1993, and the cumulative amount of each pollutant applied to the site in the biosolids since that date is known, the cumulative amount of each pollutant applied to the site shall be used to determine the additional amount of each pollutant that can be applied to the site in accordance with the cumulative loading limits listed in Part I.A.3.
  - If biosolids subject to the cumulative loading limits in Part I.A.3. have been applied since July 20, 1993, and the cumulative amount of each pollutant applied to the site in the bulk biosolids since that date is not known, an additional amount of each pollutant shall not be applied to the site.
26. *CPLR Biosolids Tracking* - Once a land application site has received biosolids subject to the CPLRs listed in Part I.A.3., tracking of the cumulative amount of each pollutant shall continue and take into account pollutant inputs from all biosolids, PC and CPLR, applied onto the site.
27. *Recordkeeping for PC and CPLR Biosolids* - For PC and CPLR biosolids, the permittee is required to retain the following information a) through g) for at least 5 years:
- The concentrations of each pollutant in Part I.A.2.;
  - Which pathogen reduction requirements in Part I.A.2. are met;
  - Which vector attraction reduction requirements in Part I.A.2. are met;
  - A description of how the management practices specified in the approved SMP and/or this permit are met;
  - A description of how the site restrictions specified in the approved SMP and/or this permit are met (if applicable);
  - The date bulk biosolids are applied to each site; and
  - The following certification statement:  
"I certify under the penalty of law, that the information that will

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E. Biolosids Land Application Special Conditions:  
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be used to determine compliance with the pathogen requirements in [permittee shall insert either 9 VAC 25-31-710.A or B], the vector attraction reduction requirements in [permittee shall insert one of the vector attraction reduction requirements in 9 VAC 25-31-720 B1 through B10], the management practices, and the site restrictions (if applicable) for each site on which bulk biosolids are applied was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

28. *Additional Recordkeeping for CPLR Biosolids* - For biosolids subject to the cumulative pollutant loading rate, the permittee is required to retain the following information a) through g) indefinitely:
- The location, by either street address or latitude and longitude, of each site on which biosolids are applied;
  - The number of hectares in each site on which biosolids is applied;
  - The date and time bulk biosolids are applied to each site;
  - The cumulative amount of each pollutant (i.e. kilograms) listed in Part I.A.3. in the bulk biosolids applied to each site, including
  - the amount of each pollutant applied since July 20, 1993;
  - the amount of each pollutant applied since July 20, 1993;
  - The amount of biosolids (i.e., tons) applied to each site;
  - A description of how the requirements to obtain information regarding the cumulative pollutant loading rates and the cumulative amount for each pollutant are met; and
  - The following certification statement:  
"I certify under the penalty of law, that the information that will be used to determine compliance with the requirements to obtain information in Part I.E.24 and Part I.E.27. for each site on which bulk biosolids are applied was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including fine and imprisonment."
29. *Reporting Land Application of Biosolids Upon Attaining 90% of CPLR* - When 90% or more of any of the cumulative pollutant loading rates in Part I.A.3. is reached at a site, the information in Part I.E.27. shall be reported to the DEQ-Southwest Regional Office on February 19th of each year for the previous calendar year's activity.

F. Special Condition - Biolosids Reporting Requirements:

- Monitoring Report* -- The results of the biosolids monitoring specified in Part I.A.2. and Part I.A.3. shall be submitted either via hard copy or electronically to the DEQ-Southwest Regional Office with the monthly activity report (Part I.E.2.) not later than the 15th day of the month after monitoring takes place. Supporting documentation,

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E. Special Condition - Biosolids Reporting Requirements:  
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including laboratory chain of custody forms and certificates of analyses, shall be included with the report.

2. *Monthly Activity Report* -- The permittee shall submit, either via hard copy or electronically, a monthly activity report to the DEQ - Southwest Regional Office by the 15th day of the month, for land application activities that occurred in the previous calendar month.

The monthly activity report shall include the following information:

- a. Name of Permittee, DEQ permit number and dates of activity;
  - b. Name and certificate number of the certified land applicators with a signed statement attesting that they were onsite at the times of the reported applications and that those applications were in compliance with the permit;
  - c. Identification of land application site, including the county where taxes are remitted and permitted site identification name, letters and numbers, as appropriate;
  - d. The source of biosolids and approximate field area (reported to the nearest 0.1 acres) receiving those biosolids;
  - e. The amount of biosolids applied in dry tons and the method and calculations used to determine the reported value. Dry ton value shall be reported to the nearest 0.01 dry tons;
  - f. Dates and type of any interactions with local monitors and names of individuals involved in the interactions;
  - g. Name of responsible representative of permittee and a statement signed and dated by that representative indicating that the information submitted has been verified by that representative as correctly reported in accordance with the Part II.K;
  - h. Presentation of the calculation of the total fee;
  - i. A summary list of the total amount of biosolids applied;
  - j. Biosolids Loading -- for each application of biosolids to an application site, the permittee shall submit in the monthly biosolids monitoring report, the concentration of PAN and  $P_2O_5$  (as pounds per dry ton) in the biosolids and the amount of PAN and  $P_2O_5$  (as pounds per acre) applied to the site from the biosolids.
3. *Land Application Fee* -- The permittee shall remit to the DEQ a fee of \$7.50 per dry ton of biosolids applied in the Commonwealth of Virginia.
- a. The permittee shall collect this fee from the facilities that generated the biosolids applied.
  - b. The permittee shall submit by postal service an invoice to DEQ-Office of Receipts Control by the 15th day of the month (postmark) for the land application activities of the previous month. The invoice shall include presentation of the calculation of the total fee; a summary list of the total amount of biosolids applied; and the signature of the permit holder with the certification statement provided below, as required by Part I.E.2.g.-i.: "I certify under penalty of law that this document and all attachments were prepared under my direction or

## PART I

F. Special Condition - Biosolids Reporting Requirements:  
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supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

"Upon receipt of the report, DEQ will review the report and notify the permit holder of the fee that is due. An invoice bill will be sent to the Permittee indicating the amount due. Payment of the fee is to be made within 30 days from the date of the bill. The payment of the fee is not to be submitted prior to receiving a bill from DEQ. Failure to submit payment within 60 days of notification by DEQ of the fee due may result in the permit being revoked or approved sources being reclassified as unapproved..

- c. Upon receipt of the bill from DEQ, the check or money order shall be payable to the "Treasurer of Virginia", and mailed with the invoice to:

Department of Environmental Quality  
Receipts Control  
P.O. Box 1104  
Richmond, VA 23218

4. *Annual Report* -- The permittee shall submit an Annual Report not later than February 19th of each year to the DEQ -Southwest Regional Office. Each report is for the previous calendar year's activity. If no biosolids were applied to the land during the reporting period, "no biosolids were applied" shall be reported. The report shall include at a minimum:
- a. Biosolids Monitoring Reports as required by Part I.A.2. and Part I.A.3, certified and signed in accordance with Part II.K;
  - b. A summary of biosolids disposal contracts currently held as well as any other biosolids or sludges currently being handled;
  - c. A summary of approved biosolids storage facilities including the capacity at each facility which is dedicated for a particular biosolids. Provide the amount of remaining storage capacity;
  - d. A summary of land application sites completed in the last year including, by county, the source, dry tons, field designation, acres and the date of last application;
  - e. A summary of any partially completed land application sites including the date of last application; and
  - f. The total acreage of permitted land application sites available for use in the next calendar year.
  - g. The results of all soil monitoring performed in accordance with Part I.A.4.
5. *Records Retention* -- The permittee shall retain records of all monitoring information pertaining to biosolids and biosolids land

## PART I

F. Special Condition - Biosolids Reporting Requirements:  
(continued)

application, including all calibration and maintenance records, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application, unless otherwise specified in this permit. This period of retention may be extended by request of the Board at any time.

G. Biosolids Storage Conditions

1. *Storage Regulatory Basis* - Biosolids shall be stored in accordance with all requirements adopted pursuant to §62.1-44.19:3 R of the Code of Virginia.
2. *Emergency Storage* - The owner shall notify the DEQ - Southwest Regional Office upon implementation of any emergency storage. Emergency storage may be implemented due to unforeseen circumstances, including the delivery of sludge which has not been stabilized to biosolids standards. The biosolids in emergency storage shall be managed in accordance with the approved SMP and shall not result in water quality, public health or nuisance problems.
3. *Temporary Storage* - The owner shall notify the DEQ-Southwest Regional Office upon implementation of any temporary storage. Temporary storage may be implemented due to unforeseen climatic factors that prevent land application of biosolids on a site on the same day that the biosolids has been offloaded at the site or is in transit to the site. Temporary storage is restricted as follows:
  - a. Biosolids stored at the site shall be land applied prior to additional offloading of biosolids at the same site;
  - b. The owner shall be restricted to storing a daily maximum amount of 100 wet tons per operational site;
  - c. The stored biosolids shall be land applied within 30 days from the initiation of storage or moved to a routine biosolids facility;
  - d. Approval of plans for temporary storage will be considered as part of the overall SMP;
  - e. Temporary storage shall not occur in areas prone to flooding at a 25-year or less frequency interval;
  - f. A synthetic liner shall be required for placement under and over biosolids stored in this manner with one exception: where biosolids is stockpiled for less than seven days, a liner placed under the stored biosolids is not required. Surface water diversions and other BMPs should be utilized as appropriate; and
  - h. Temporary storage shall not result in water quality, public health or nuisance problems.

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G. Other Requirements or Special Conditions

1. *95% Capacity Reopener:* A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to DEQ, Southwest Regional Office, P. O. Box 1688, Abingdon, Virginia, 24212, when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the Southwest Regional Office no later than ninety (90) days from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of the permit.
2. *Indirect Dischargers:* The permittee shall provide adequate notice to the Department of the following:
  - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of the Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and
  - b. Any substantial change in the volume or character of the pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit. Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the treatment works, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment works.
3. *CTC, CTO Requirement:* The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9VA25-790), obtain a Certificate to Construct (CTC) and a Certificate to Operate (CTO) from the DEQ Office of Wastewater Engineering (for Water Quality Improvement Funded (WQIF) projects) or submitted by the design engineer and owner to the DEQ regional water permit manager (for non WQIF projects) prior to constructing wastewater treatment works and operating the treatment works, respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.
4. *Operation and Maintenance Manual Requirement:* The permittee shall review the existing Operations and Maintenance (O&M) Manual and notify the DEQ Southwest Regional Office in writing within 90 days of the effective date of this permit whether it is still accurate and complete. If the O & M Manual is no longer accurate and complete, a revised O & M Manual shall be submitted for approval to the DEQ Southwest Regional Office within 90 days of the effective date of this permit. The permittee will maintain an accurate, approved operation and maintenance manual for the treatment works. This manual shall detail the practices

PART I

G. Other Requirements or Special Conditions  
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and procedures which will be followed to ensure compliance with the requirements of the permit. The permittee shall operate the treatment works in accordance with the approved O & M Manual. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

- a. Techniques to be employed in the collection, preservation, and analysis of effluent and sludge samples.
- b. Procedures for measuring and recording the duration and volume of treated wastewater discharged:
- c. Discussion of Best Management Practices, if applicable;
- d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants that will prevent these materials from reaching state waters.
- e. Treatment works design, treatment system operation, routine preventive maintenance of units within the treatment system, critical spare parts inventory and record keeping; and
- f. A plan for the management and/or disposal of waste solids and residues.

Any changes in the practices and procedures followed by the permittee shall be documented and submitted for DEQ Southwest Regional staff approval within 90 days of the effective date of the changes. Upon approval of the submitted manual changes, the revised manual becomes an enforceable part of the permit. Noncompliance with the O & M manual shall be deemed a violation of the permit.

5. *Reliability Class*: The permitted treatment works shall meet Reliability Class III.
6. *Treatment Works Closure Plan*: If the permittee plans an expansion or upgrade to replace the existing treatment works, or if the facility is permanently closed, the permittee shall submit to the DEQ Regional Office a closure plan for the existing treatment works. The plan shall address the following information as a minimum: Treatment, removal and final disposition of residual wastewater and solids; removal of structures, equipment, piping and appurtenances; site grading, and erosion and sediment control; restoration of site vegetation; access control; fill materials; and proposed land use (post-closure) of the site. The plan should contain proposed dates for beginning and completion of the work. The plan must be approved by the DEQ prior to implementation.
7. *Section 303(d) List (TMDL) Reopener*: This permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the treatment works that are not consistent with the permit requirements.

## CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.

B. Records.

1. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individual(s) who performed the sampling or measurements;
  - c. The date(s) and time(s) analyses were performed;
  - d. The individual(s) who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

Department of Environmental Quality  
Southwest Regional Office  
P.O. Box 1688  
Abingdon, VA 24212

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department.
3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.
4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information.

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges.

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges.

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F, shall notify

the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges.

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
  - a. Any unanticipated bypass; and
  - b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
  - a. A description of the noncompliance and its cause;

- b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
- c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

- 3. The permittee shall report all instances of noncompliance not reported under Parts II I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II I 2.

**NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I may be made to the Department's Regional Office at (276) 676-4800 (voice) or (276) 676-4899 (fax). For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.**

**J. Notice of Planned Changes.**

- 1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
  - a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
    - (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or
    - (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
  - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
  - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements.

1. Applications. All permit applications shall be signed as follows:
  - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
  - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
  - c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described in Part II K 1;
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

- c. The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II K 2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Parts II K 1 or 2 shall make the following certification:  
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit.

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law.

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II U), and "upset" (Part II V) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges.

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II U 2 and U 3.
2. Notice
  - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
  - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II I.
3. Prohibition of bypass.
  - a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:
    - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
    - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
    - (3) The permittee submitted notices as required under Part II U 2.
  - b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II U 3 a.

V. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.
2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
  - b. The permitted facility was at the time being properly operated;
  - c. The permittee submitted notice of the upset as required in Part II I; and

- d. The permittee complied with any remedial measures required under Part II S.
3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry.

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions.

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II Y 1, this permit may be automatically transferred to a new permittee if:
  - a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
  - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

- c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II Y 2 b.

Z. Severability.

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.